

EN INSTRUCTIONS FOR USE

Poli3Dent CAST

DEVICE DESCRIPTION:

Light-curing resin based on (meth)acrylate for additive manufacturing (3D printing) of residue-free burnout objects for the casting process. Compatible with the Asiga MAX UV 385.

AREA OF APPLICATION:

Used for the production of burnout objects for casting such as:

- Copings;
- Crowns;
- Bridges of up to six units.

SAFETY INFORMATION:

For professional use only, use in well-ventilated areas.

Not for intraoral use.

Refer to the relevant Safety Data Sheet (SDS) before use.

Always wear personal protective equipment (e.g. protective gloves, goggles, etc.).

Follow the 3D printer manufacturer's manual during handling and printing.

CONTRAINdications:

The product contains acrylates and phosphine oxides, which may cause allergic reactions in sensitive individuals.

PREPARATION BEFORE USE

- 3D printing system (3D printer, washing, and post-curing unit);
- appropriate software;
- Poli3Dent Cast resin;
- flexible spatula, tweezers and a sharp flat tool for printed object removal and processing
- cleaning solution*:

*recommended Poli3Dent Cleaner concentrate for water-based ultrasonic cleaning.

*Alternatives: ethanol ≥95 % or IPA ≥91 %

- allow the resin to reach room temperature before use
- do not mix with other products

3D PRINTING

Follow the instructions in the operating manual of your 3D printer.

- Gently shake the resin bottle for about 30 seconds to ensure uniformity
- Pour resin into the printer tank and wait a few minutes for air bubbles to dissipate
- Ensure the print platform is clean, dry, and securely installed
- Printing settings for Poli3Dent Cast for the Asiga MAX UV 385 are available upon request from your distributor. The bottom layers require longer exposure times. Our general recommendation is that their exposure time should be 4 - 5 times longer than that of normal layers
- Start the printing process of the burnout object prepared according to established dental procedures
- Monitor the print for potential issues

CLEANING

Remove the printed object within 8 hours after printing and proceed with cleaning immediately.

Cleaning steps:

- use recommended water-based solution with Poli3Dent Cleaner in an ultrasonic bath
- alternatively, ethanol min. 95% or IPA min. 91% can also be used in combination with more traditional stirring bath (3D printing wash station)

Uncured objects should be stored away from light, at room temperature and cured as soon as possible.

POST-CURING AND FINAL PROCESSING

Remove support structures before or after curing using side cutters

Validated post-curing unit: Otoflash H171 (2 x 500 flashes)

Allow the object to cool completely before handling

If needed, smooth support contact points. Fully cured objects may be cleaned using steam, running water with soap, or a soft toothbrush. Afterwards, objects should be placed within investment material within 1 week after curing.

Do not leave resin sitting in the printer tank.



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CASTING

Verify the printed object on the model and attach a sprue before placing it into the investment material.

For the casting process, we recommend using Polident UniveCAST investment material. Follow the manufacturer's instructions for the selected investment material and proceed according to established dental laboratory procedures.

Casting recommendation table for dental alloys (Co-Cr) with Polident UniveCAST investment material:

Heating	Quick heating	Slow heating*
Cylinder size	Silicon or metal cylinders (sizes x3, x6)	Metal cylinder (size x9)
Time after initiating mixing when the cylinder is placed into furnace	20	20
Pre-heated furnace temperature (°C)	900	250
Holding time at end temperature	90 minutes (x1, x3) – 120 minutes (x6, x9) at 900 °C	

* Heating rate: 9 °C/min. It is recommended to heat the x9 metal cylinders slowly, as this involves a relatively large invested object. This allows the resin to burn out more gradually, resulting in lower internal stress.

STORAGE

Store the resin tightly sealed, in a cool, dry place.

Keep away from UV light sources.

Storage temperature: 10 – 30 °C

Processing temperature: 22 – 28 °C

ORDERING INFORMATION

Catalogue No.: P3DC-PB1

Filling quantity: 1 kg

Color: blue

Supplied in light-proof, sealed bottles

DISPOSAL

Fully cured resin can be disposed of as domestic waste. Dispose of uncured resin, ethanol/IPA, and contaminated cleaning liquids according to local environmental regulations.



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